

of vesicle  $3\frac{1}{2}$ ; length of humerus  $5\frac{1}{4}$ , of brachium  $6\frac{3}{4}$ ; width of brachium and of hand 3; length of "hand-back" 5, of movable finger  $6\frac{3}{4}$ , of pecten  $4\frac{1}{2}$ .

Two female specimens from Madagascar, presented to the British Museum by Mr. Lewis H. Ransome.

In the shape of the pulmonary stigmata this species stands by itself in the family Buthidæ, and should in consequence perhaps constitute a new genus. But it does not seem to me advisable to attach generic importance to this character, since the form of the apertures in question is not quite constant in *Buthus* and the specimens presenting the peculiarity are in the rest of their features so essentially referable to that genus. The dilated basal tooth of the pectines appears to indicate affinity between this new form and *B. limbatus* and *G. madagascariensis*. But, apart from the stigmata, *B. piceus* may be separated from the latter by the dentition of the chelicere, from the former by its dark colour and by the simple shape of the before-mentioned pectinal tooth.

#### EXPLANATION OF PLATE XV.

- Fig. 1. Hand of *B. Martensii* (Karsch), ♂.  
 Fig. 1 a. Ditto, ditto, ♀.  
 Fig. 1 b. Hand of *B. hottentotta* (Fabr.), ♀.  
 Fig. 2. Fifth caudal segment and vesicle of *B. Martensii* (Karsch).  
 Fig. 2 a. Ditto, ditto, of *B. confucius* (Simon).  
 Fig. 3. *Buthus socotrensis*, sp. n., nat. size.  
 Fig. 4. *Buthus atlantis*, sp. n., nat. size.  
 Fig. 5. Anterior two caudal segments of *B. planicauda*, sp. n.  
 Fig. 5 a. Ditto, ditto, of *B. liosoma* (Ehrenb.).  
 Fig. 6. *Buthus Phillipsii*, sp. n., nat. size, ♂.  
 Fig. 7. *Buthus limbatus*, sp. n., nat. size, ♀.  
 Fig. 7 a. The same. Basal portion of pecten.  
 Fig. 8. *Buthus piceus*, sp. n. Basal portion of pecten.  
 Fig. 8 a. The same. Second abdominal sternite with stigmata.

#### XXXIX.—Descriptions of new Species of *Rhopalocera* from Mexico and Central America. By F. D. GODMAN and O. SALVIN.

COLLECTIONS of *Rhopalocera* recently received by us from Mexico and other parts of Central America, as well as some submitted to us by Doctor Staudinger, contain representatives of the following species, which we believe to be undescribed.

As it will be some time before we can include them in our work on this region, we think it desirable to take an earlier opportunity of making them known.

### 1. *Pteronymia timagenes*, sp. n.

*P. tigrani*, nob., proxima, sed alarum marginibus multo rufescentioribus, anticarum margine interno medialiter tantum nigricante, macula cretacea ultra cellulam multo minore.

*Hab.* Mexico, Sierra Madre del Sur, alt. 6000–8000 feet (*H. H. Smith*).

Mr. Smith captured several specimens of this species at Omilteme and other places in the Sierra Madre del Sur. It is evidently a Western Mexican form of *P. tigranes*, and, like so many of the Ithomiinæ of this region, has the margins of the wings rufous instead of blackish.

### 2. *Euptychia cleophes*, sp. n.

♂. Alis fuscis, lineis duabus submarginalibus, interiore crenulata; posticis oculo ad angulum analem nigro, ochraceo circumcincto et plumbeo bipupillato: subtus fusco-grisescens lineis duabus transversis notatis, una per cellulas, altera ad finem earum fulvis; tricente distali pallidioribus; lineis submarginalibus sicut in pagina superiore sed magis distinctis; anticis oculo subapicali nigro, fulvo circumcincto et plumbeo bipupillato, altero supra eum et duobus infra obsoletis; posticis ocellis duobus distinctis, uno subapicali, altero inter ramos medianos, duobus obsoletis inter eos et altero apicali.

♀. mari similis, sed anticis oculo subapicali distincto ornatis et plaga ad medium marginis externi fulva: subtus anticis plaga fulva sicut in pagina superiore, lineis transversis latioribus et rufescentibus.

*Hab.* Mexico occidentalis (*H. H. Smith*).

This species must be compared with *E. myncea* and *E. labe*, but may be distinguished by the absence of rufous markings beneath at the anal angle of the secondaries. As in *E. labe* there is no fulvous line across the base of the secondaries beneath. The female has a distinct rufous patch near the middle of the outer margin of the primaries. Mr. Smith's collection contains several specimens, all taken at Tierra Colorada and Dos Caminos on the road to the interior from Acapulco, at the base of the Sierra Madre del Sur.

### 3. *Euptychia clinas*, sp. n.

Alis anticis ad apicem obtusis, margine externo concavo; posticis

margine externo dentato, angulo anali bene producto: fuscis, anticis ad costam et marginem externum saturatoribus, posticis ad angulum apicalem quoque obscurioribus maculis tribus submarginalibus nigricantibus notatis: subtus pallidioribus et paulo rufescentioribus, lineis tribus undulatis communibus transfasciatis, una per cellulas, altera discali, tertia submarginali; posticis maculis duabus ad angulum analem rotundis, altera sagittiforme inter ramos medianos argenteis; ocellis duobus ad medium marginis externi nigris fulvo circumcinctis, maculis argenteis bipupillatis. Exp. 2.0 poll. Angl.

*Hab.* Mexico, Sierra Madre del Sur (*H. H. Smith*).

This very distinct species, belonging to the section of the genus containing *E. argentella* and its allies, may be readily distinguished by the dentate margin of the secondaries and the prolongation of the anal angle; the blunt apex of the primaries is also a marked feature.

Mr. Smith obtained several specimens in the higher portions of the Sierra Madre del Sur in the State of Guerrero at Omilteme, 8000 feet above the sea, and at Xucumanatlan at 7000 feet.

#### 4. *Lymanopoda cinna*, sp. n.

Alis nigricanti-brunneis; anticis maculis tribus subapicalibus, una ad angulum analem et duabus discalibus inter ramos medianos; posticis ad basin læte cæruleo lavatis: subtus rufo-castaneis; anticis ad marginem externum pallidioribus, maculis albis sicut in pagina superiore, sed majoribus et omnibus (præter eam costæ proximam) nigro circumcinctis, macula pallida nigro circumcincta ad cellulæ finem; posticarum dimidio distali fasciis indistinctis ochraceis transversis et ocellis obsoletis discalibus notatis. Exp. 2.2.

*Hab.* Guatemala, San Lucas Toliman, alt. 5000 feet (*G. C. Champion*).

Mr. Champion took a single male specimen of this beautiful species in the forest of the Volcano of Toliman. Its nearest ally, so far as we are aware, is *L. euopis* of Costa Rica; but it may at once be distinguished by the blue base of the secondaries in the male. The only other species in which this colour is exhibited are the Colombian *L. samius* and *L. cæruleata*; but these species are not otherwise allied.

#### 5. *Phyciodes alexon*, sp. n.

♂. *P. nebulosæ* affinis, sed anticarum maculis omnibus pallide flavidis (nec ferrugineis), lineis et maculis posticarum dimidii distalis quoque flavidis distinguenda.

♀ mari similis, sed major et maculis omnibus magis distinctis.

*Hab.* Mexico, Cuernavaca and Sierra Madre del Sur (*H. H. Smith*).

This species seems clearly allied to *P. nebulosa* (Biol. Cent.-Amer., Rhop. i. p. 205, t. xxii. figs. 13, 14), having similar elongated wings and coloration of the under surface.

#### 6. *Phyciodes cyno*, sp. n.

*P. otani* similis, sed anticis maculis discalibus majoribus et plaga sericea nulla: subtus anticis (apice excepto) fere unicoloribus, lineolis ad basin et costam versus obsoletis vix notatis; posticis plerumque grisescentioribus, maculis omnibus sicut in *P. otani* sed magis distinctis.

*Hab.* Mexico, Orizaba (*H. J. Elwes*).

A single male specimen taken at Orizaba in March by Mr. Elwes seems undoubtedly distinct from *P. otanes*. The latter species has a silky patch on the primaries divided by the median branches; of this we see no trace in the insect we now describe. *P. sopolis* is more like *P. cyno* as regards the spots of the primaries, but beneath those wings are much more distinctly marked and thus agree with *P. otanes*.

#### 7. *Myscelia auletes*, sp. n.

Alis nigricanti-brunneis, anticis ad basin pallidioribus, area interna a basi usque ad medium marginis interni et posticis ad basin purpurascens; anticis maculis subapicalibus albidis purpureo cinetis: subtus fere omnino ut in *M. cyananthe*, sed anticis ad basin inornatis.

*Hab.* Lower California, Pichilique (*J. J. Walker*).

Mr. Walker, when attached to H.M.S. 'Kingfisher,' captured a single male specimen of this species in rather worn condition. So far as the coloration of the upper surface is concerned the species is a very distinct one, all of those previously described being much more freely marked with blue; this in the present insect is confined to a small area at the base of the wings. On the under surface *M. auletes* is marked almost exactly as in *M. cyananthe*.

#### 8. *Callicore beleses*, sp. n.

*C. Marchalii* similis, sed fascia anticarum magis arcuata; posticis plaga magna discali nitenti-æneo ornatis: subtus linea subapicali gilva angustissima, fascia arcuata juxta eam lunulata costam haud attingente; posticis lineis omnibus nigris, multo latioribus.

*Hab.* Panama, Chiriqui (*Mus. Staudinger*).

Dr. Staudinger has submitted to us a single specimen of this species, which is closely allied to *C. Marchalii*, but can be readily recognized by the conspicuous metallic spot on the discal area of the secondaries. As the true *C. Marchalii* occurs abundantly in Chiriqui, and thence northward to Nicaragua, the occurrence of a second species in the same area is somewhat remarkable.

9. *Prepona Brooksiana*, sp. n.

♀. Alis fusco-nigris, fascia lata communi per medium alarum (latiore in posticis) nitente cyanea; maculis magnis fulvis in serie submarginali positis, iis in posticis nigro ocellatis: subtus dimidio basali, extrorsum irregulariter terminato, argenteo-cano, lineis transversis undatis nigris, dimidio distali brunneo-cinereo; anticis lineis transversis tribus nigris, una brevi ad cellulæ finem, altera bene angulata ultra eam per alam extendente, tertia exteriore et margine externo subparalleli, punctis tribus angulum analem versus nigris; posticis argenteo irroratis, ocellis duobus nigris fulvo semicircumcinctis cyaneo et albo pupillatis, una ad apicem, altera ad angulum analem, fascia submarginali communi fere obsoleta pallidiore in posticis intra ocellos, punctis tribus indistinctis cyaneis notatis. Exp. 5.

*Hab.* Mexico, Coatepec (*J. Brooks*).

A single female example of this beautiful and distinct species was captured by Mr. Brooks at Coatepec, and was presented by him to us together with several rare or new Lepidoptera, and we have much pleasure in naming this fine insect after its discoverer. On the upperside it somewhat reminds one of *E. deiphile* of South-east Brazil, having a similar submarginal row of fulvous spots; but here the resemblance ends, for it has a broad blue stripe crossing the centre of both wings, instead of the whole of the interior being suffused with purple; the markings too of the underside are quite different, and it does not appear to be very closely allied to any other species. The male is at present unknown.

10. *Prepona celia*, sp. n.

Alis nigricantibus, fascia communi mediana nitente cyanea; posticis maculis duabus parvis ad angulum analem aliisque obsoletis submarginalibus cyaneis: subtus sericeo-cinereo-brunneis fere unicoloribus, dimidio basali lineis paucis nigris irregulariter transfasciatis; posticis maculis ad angulum analem cyaneis et ad marginem externum sicut in pagina superiore. Exp. 4.

*Hab.* Mexico, Coatepec (*J. Brooks*).

We have a single male specimen kindly given us by Mr. Brooks of Coatepec. It resembles in some respects *P. synchronoma* of Staudinger and has a similar distribution of blue on the upper surface of the wings; but the secondaries have no obsolete submarginal fulvous spots as in that species. Beneath the wings are nearly uniformly coloured, instead of being divided into two tints by a sharply defined straight transverse line.

### 11. *Eurygona cheles*, sp. n.

♀. *E. aurantiaca* similis, sed anticis area circa ramum medianum primum et cellula fusco lavatis, posticarum margine externo rotundato (haud angulato): subtus pallidioribus, linea transversa communi in anticis fere recta, in posticis magis sinuata.

♂ adhuc ignotus.

*Hab.* Panama, Chiriqui (*Trötsch*). Mus. Staudinger.

A single female in Dr. Staudinger's collection differs in several respects from examples of the same sex of *E. aurantiaca*, to which it is obviously allied. The male will doubtless resemble the allied form, but a difference must be looked for in the straightness or curvature of the common band on the under surface of the wings.

### 12. *Lymnas gynæceas*, sp. n.

Alis nigris; anticis apice flavidis, macula ad basin coccinea; posticis immaculatis præter maculam basalem coccineam: subtus ut supra; abdomine maculis quatuor coccineis utrinque notato.

*Hab.* Mexico, Cuesta de Misantla (*M. Trujillo*).

This species appears to be most nearly allied to *L. pive*, but may at once be distinguished by the absence of the marginal scarlet spots on the wings.

### 13. *Baotis nesca*, sp. n.

Alis pallide flavis; anticis dimidio distali, costa et linea obliqua ad basin nigricantibus, limbo marginali maculis duabus flavis, una subapicali, altera ad angulum analem, macula rubra ad costæ medium; posticis margine externo late nigricante (linea flava et altera exteriori plumbea includente) cum linea basali margine interno subparallela conjuncta: subtus ut supra, maculis et lineis submarginalibus majoribus, lineis basalibus subobsoletis.

*Hab.* Panama, Volcan de Chiriqui (*Trötsch*).

Dr. Staudinger has submitted to us the single male speci-

men here described and figured. It has no near allies known to us, but somewhat resembles *B. felix*, Hew. The red spot on the costa of the primaries, however, is quite characteristic.

14. *Emesis brimo*, sp. n.

Alis brunneis, area discali vix sericeo nitente et lineolis nigris transversis fere ut in *E. lupina*; anticis macula quadrata ad cellulæ finem, altera costali ultra eam, margine externo late maculisque variis ad basin testaceis, maculis submarginalibus sex nigris, ea ad angulum analem duplici; posticis testaceo variegatis et maculis submarginalibus nigris notatis: subtus testaceis, maculis et lineolis nigris undique notatis.

*Hab.* Panama, Chiriqui (*Trötsch*, Mus. Staudinger).

Dr. Staudinger has submitted to us a single male specimen of this pretty little species, which has no near ally with which we can satisfactorily compare it. It belongs, however, to the same group as *E. lupina*, but the markings are all much more clearly defined.

15. *Lemonias idmon*, sp. n.

Alis ferrugineis ad basin paullo fuscioribus et nigro frequenter maculatis: subtus canescentibus ad margines externos et anticis ad costam magis fuscis: maculis nigris sicut in pagina superiore, sed maculis singulis albo-cinctis: maculis submarginalibus quoque nigris albo-cinctis, eis venæ medianæ posticarum utrinque obsolete.

♀ mari similis, sed alis fuscioribus ferrugineo vix tinctis.

*Hab.* Panama, Chiriqui (*Trötsch*).

Dr. Staudinger has sent us a male and female of this species, which is allied to *L. galena*, Bates, but the wings of the male are less ferruginous above, and beneath there is no submarginal rufous band to the secondaries; the submarginal spots also on these wings are more irregular, those on either side of the median vein being obsolete.

16. *Papilio corbis*, sp. n.

*P. philenori* affinis, sed posticis fere ecandatis: subtus margine posticarum æneo-virescente, multo angustiore, maculis suis rufescentioribus distinguendus.

*Hab.* Mexico, Northern Yucatan (*Gaumer*).

We have several specimens of this form of *P. philenor*, including both sexes. The males have a submarginal row of

spots on the primaries, just as in the females, only rather smaller; as a rule these are not present in the males of *P. philenor*.

17. *Papilio orsua*, sp. n.

♂. *P. philenori* quoque similis, sed multo minor et alis nitide caulescentioribus; posticis caudatis, maculis submarginalibus magis rotundatis et pure albis: subtus posticis a margine usque ad cellulam nitide cyanescentibus, maculis suis saturate rubris.

♀ mari similis, sed maculis omnibus majoribus et magis distinctis.

*Hab.* Mexico, Tres Marias Islands (*Forrer*).

This is also a form of *P. philenor*, probably peculiar to the Tres Marias Islands; as in *P. corbis* the tails of the secondaries are not developed, but it differs from that species in the bluer tint of its wings, the spots of the hind wings being of a clearer white and further from the outer margin, and beneath the metallic blue margin of the secondaries is much wider, extending up to the cell. On the opposite mainland at Acapulco and Mazatlan the true *P. philenor* is found.

XI.—Description of a new Species of the singular Lepidopterous Genus *Mastigophorus*. By A. G. BUTLER, F.L.S., F.Z.S., &c.

THE genus *Mastigophorus* was founded by Poey (Cent. Lep. Cuba, pl. viii.) for the reception of a small Deltoid moth—*M. parva*.

This genus, incorrectly quoted by Guénée and Walker as *Mastigophora* (*sic*), is characterized by extraordinarily elongated, reflexed, and fringed palpi, slender antennæ with well-defined conical joints, the anterior angles of which are furnished on each side with a delicate short hair, and the tibiæ of the anterior legs terminating in a dense pencil of short hairs; the last-mentioned character and the entire instead of angulated primaries seem alone to distinguish it from *Palthis*, Hübn., = *Clanyma*, Guén., = *Mardara*, Walk.

The species now to be described is allied to *M. lycagusalis* of Walker = *Bertula*? *monstrosalis* of Felder and Rogenhofer, from Venezuela, but differs in its much deeper colouring, narrower and simply white-edged reniform spot, simply angu-